

## ABSTRACT

A perfusion catheter system that allows selective temporary perfusion of small vascular or other anatomic structures arising from a host structure atraumatically. The perfusion device has an elongate body having an afferent end portion for receiving perfusion fluid, an efferent end  
5 portion for delivering the perfusion fluid to the branch vessel, and a lumen extending between the afferent and efferent end portions for the passage of fluid. The perfusion fluid is delivered through a hub assembly which provides a secure temporary water-tight seal between the perfusion catheter and the host structure without damage to the tissue, thereby enabling a safe and effective interface with small branch vessels during host artery clamping.

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